

173-470 AMBIENT AIR QUALITY STANDARDS FOR PARTICULATE MATTER  
(Formerly chapter 18-40 WAC)

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173-470-010 PURPOSE.

This chapter promulgated under RCW 70.94.305 and 70.94.331 establishes maximum acceptable levels for particulate matter in the ambient air. Particulate matter is characterized in criteria developed by the United States Environmental Protection Agency.

[Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-010, filed 9/16/87.]

173-470-020 APPLICABILITY.

The provisions of this chapter apply to all areas of the state of Washington.

[Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-020, filed 9/16/87.]

173-470-030 DEFINITIONS.

Unless a different meaning is clearly required by context, words and phrases used in this chapter shall have the following meanings; general terms common with other chapters of Title 173 WAC as defined in chapter 173-403 WAC.

[Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-055 (Order 88-39), § 173-470-030, filed 1/3/89. Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-030, filed 9/16/87.]

173-470-100 AMBIENT AIR QUALITY STANDARDS.

- (1) The level of the 24-hour ambient air quality standard for total suspended particulate is 150 micrograms per cubic meter (mg/m<sup>3</sup>), 24-hour average concentration. The standard is attained when the number of days per calendar year is less than or equal to one for measured 24-hour concentrations above 150 mg/m<sup>3</sup>.

- (2) The level of the annual standard for total suspended particulate is sixty micrograms per cubic meter (mg/m<sup>3</sup>), annual geometric mean. The standard is attained when the annual geometric mean concentration is less than or equal to 60 mg/m<sup>3</sup>.
- (3) The level of the 24-hour ambient air quality standard for PM-10 is 150 micrograms per cubic meter (mg/m<sup>3</sup>), 24-hour average concentration. The standard is attained when:
  - (a) The expected number of days per calendar year with a 24-hour average concentration above 150 mg/m<sup>3</sup>, as determined in accordance with 40 CFR 50 Appendix K as in effect on July 1, 1988, is equal to or less than one; and
  - (b) The number of days per calendar year the measured 24-hour average concentration above 150 mg/m<sup>3</sup> is equal to or less than one.
- (4) The level of the annual standard for PM-10 is 50 micrograms per cubic meter (mg/m<sup>3</sup>), annual arithmetic mean. The standard is attained when the expected annual arithmetic mean concentration, as determined in accordance with 40 CFR 50 Appendix K as in effect on July 1, 1988, is less than or equal to 50 mg/m<sup>3</sup>.

[Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-055 (Order 88-39), § 173-470-100, filed 1/3/89. Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-100, filed 9/16/87.]

#### 173-470-110 PARTICLE FALLOUT STANDARDS.

Particle fallout shall not exceed the standards enumerated below at the conditions stated.

- (1) The particle fallout rate measured at a primary air mass station, ground level monitoring station or special station shall not exceed:
  - (a) Ten grams per square meter (10 g/m<sup>2</sup>) per month in an industrial area; or
  - (b) Five grams per square meter (5 g/m<sup>2</sup>) per month in an industrial area if visual observations show a presence of wood waste and the volatile fraction of the sample exceeds seventy percent.
  - (c) Five grams per square meter (5 g/m<sup>2</sup>) per month in residential and commercial areas.
  - (d) Three and one-half grams per square meter (3.5 g/m<sup>2</sup>) per month in residential and commercial areas if visual observations show the presence of wood waste and the volatile fraction of the sample exceeds seventy percent.
- (2) In recognition of natural dust in areas of the state, the following exceptions apply to areas east of the Cascade range crest. When concentrations measured at approved background locations exceed three and one-half grams per square meter (3.5 g/m<sup>2</sup>) per month, the particle fallout rate measured at a primary air mass station, ground level monitoring station or special station, shall not exceed:

- (a) Six and one-half grams per square meter (6.5 g/m<sup>2</sup>) per month plus background in an industrial area; or
- (b) One and one-half grams per square meter (1.5 g/m<sup>2</sup>) per month plus background in residential and commercial areas.

The provisions of WAC 173-470-110 (1)(b) and (d) pertaining to wood waste shall continue to apply regardless of background.

[Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-110, filed 9/16/87.]

#### 173-470-150 METHOD OF MEASUREMENT.

Sampling and analysis for particulate matter shall be conducted according to methods approved by and on file with the department. Methods equivalent in sensitivity, accuracy, reproducibility, and selectivity to the approved standard method may be used after approval by the department.

[Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-150, filed 9/16/87.]

#### 173-470-160 REPORTING OF DATA.

- (1) Air authorities sampling for particulate matter shall notify the department of all infractions of these standards. Notification shall be made quarterly. A quarterly summary of all samples greater than the standards shall be submitted within sixty days of the end of each calendar quarter. Quarterly data shall include:
  - (a) Location of sampler.
  - (b) Time period (day and year).
  - (c) Individual concentrations recorded at each air monitoring station.
  - (d) The applicable geometric or arithmetic mean for each monitoring station (first quarter report only for previous calendar year).
- (2) If particulate matter values greater than the standards are measured by the department, the air authority shall be notified quarterly. This notification shall include:
  - (a) Location.
  - (b) Time or time period.
  - (c) Concentrations recorded.
  - (d) The applicable geometric or arithmetic mean (first quarter report only for previous calendar year).

[Statutory Authority: Chapter 70.94 RCW. 87-19-080 (Order 87-19), § 173-470-160, filed 9/16/87.]